

# PROJECT DESCRIPTION

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## INTRODUCTION

Verizon Wireless (here after referred to as “Verizon”) is a wireless telephone company operating throughout the United States of America. Verizon is licensed to operate in the United States by the Federal Communications Commission (FCC). Verizon is currently expanding its network in the King County area to make available improved telephone service and provide wireless capacity to its subscribers.

This proposal describes the scope of the proposed project by providing specific information regarding the project location, zoning, specifications, and required services.

It is Verizon’s desire to work with the City of Kirkland to ensure that this project is consistent with local ordinances and zoning regulations while providing wireless coverage to Verizon’s customers and provide critical communication services for emergency, business, and personal use.

## Project Goals

The goal of the Verizon SEA Carillon Point site is to upgrade Verizon’s existing network to provide better telephone service. Verizon intends to achieve these network goals consistent with all policies and ordinances of the City of Kirkland.

## Application Request Plan

The applicant is requesting the following:

- Minor Modification

## GENERAL PROJECT DESCRIPTION

### Project Overview

The applicant, Verizon, proposes to modify an existing rooftop telecommunication facility located at 3000 Carillon Point (Parcel No. 1725059058) to provide expanded services.

The proposed modification consists of the following: Upgrading/replacing six (6) existing antennas and add associated ancillary equipment. Please see Sheet A-3 and A-5.1 for more detailed information.

### Facility Specifications

- Antennas - Verizon is proposing replace/upgrade six (6) existing antennas. Please see Sheet A-3 and A-5.1 for more detailed information.
- Auxiliary Equipment - Verizon is proposing to attach the following auxiliary equipment behind the existing antennas on the tower: remote radio units (RRU) and surge protectors. Please see Sheet A-3 for additional information.
- Color - The antennas, any ancillary equipment, and any associated mounting hardware will be painted to match the existing site conditions.
- Facility Maintenance - The facility is generally serviced once a month. One (1) to two (2) employees are on site for an average of four (4) hours of maintenance checks. This check is typically for preventive maintenance purposes. In the event of a problem, a crew is dispatched to the site immediately.

## GENERAL SITE ANALYSIS

### Zoning General Plan Designation

The site is zoned PLA 15A. Verizon's proposed site modifications require the review and approval of a Minor Modification request according to Section 117.20 of the Kirkland Zoning Code (KZC).

Accordingly, Verizon is requesting the review and approval of a Minor Modification request, pursuant to the criteria found in KZC 117.105:

- The modification is minor and will not substantially change the PWSF; and
- There will not be any substantial changes in the impacts on the neighborhood or the City as a result of the change

### Design Standards

According to KZC 117.65.1-3:

1. Context - The location and design of a cell site shall consider its visual and physical impact on the surrounding neighborhood and shall, to the extent feasible, reflect the context within which it is located.

The proposed modifications are located on the existing rooftop in order to reduce the visual and physical impact to the surrounding neighborhood.

2. Design Compatibility - PWSF shall be architecturally compatible with the surrounding buildings and land uses or otherwise integrated, through location, design, and/or concealment technology, to blend in with the existing characteristics of the site and streetscape to the maximum extent practical.

The proposed modifications have been designed to be compatible with the surrounding buildings and have been integrated as much as possible with the existing building

3. Concealment Technology - One or more of the following concealment measures must be employed unless the City determines through the applicable review process that alternative measures would be more appropriate given the contextual setting of the PWSF:

- a. For personal wireless service towers:

If within an existing stand of trees, the tower shall be painted a dark color, and be made of wood or metal. A greenbelt easement is required to ensure permanent retention of the surrounding trees.

Towers in a more open setting shall have a backdrop (for example, but not limited to, trees, a hillside, or a structure) on at least two sides, be a color compatible with the backdrop, be made of materials compatible with the backdrop, and provide architectural or landscape screening for the remaining sides. If existing trees are the backdrop, then a greenbelt easement is required to ensure permanent retention of the surrounding trees. The greenbelt easement shall be the minimum necessary to

provide screening and may be removed at the landowner's request in the event the facility is removed.

Antennas shall be integrated into the design of any tower to which they are attached. External projections from the tower shall be limited to the greatest extent technically feasible. Where antennas are completely enclosed within the tower, the need for the backdrop described in the preceding paragraph may be reduced or eliminated, depending on the tower design and context.

The proposed modifications are located on an existing building. The replacement antennas will be painted to match the existing building.

b. For rooftop antennas or antennas mounted on other structures:

Omni-directional antennas mounted on the roof shall be of a color compatible with the roof, structure or background.

Other antennas shall use compatible colors and architectural screening or other techniques approved by the City.

Antennas shall be integrated into the design of the structure to which they are attached. External projections from the structure shall be limited to the greatest extent technically feasible.

The proposed modifications are located on an existing building. The replacement antennas and auxiliary equipment will be painted to match the existing building.

c. Antennas mounted on one or more building facades shall:

- (1) Use color and materials to provide architectural compatibility with the building;
- (2) Be mounted on a wall of an existing building in a configuration as flush to the wall as technically possible; and
- (3) Not project above the wall on which it is mounted.

The proposed modifications are located on an existing building. The replacement antennas and auxiliary equipment will be painted to match the existing building and are flush mounted. Please see Sheet A-5.1 for more detailed information.

d. Where feasible, cable and/or conduit shall be routed through the inside of any new tower, utility pole, or other support structure. Where this is not feasible, or where such routing would result in a structure of a substantially different design or substantially greater diameter than that of other similar structures in the vicinity or would otherwise appear out of context with its surroundings, the City may allow or require that the cable or conduit be placed on the outside of the structure. The outside cable or conduit shall be the color of the tower, utility pole, or other support structure, and the City may require that the cable be placed in conduit.

Any necessary cable and/or conduit will be routed to reduce visibility where feasible.

e. Alternative measures for concealment may be proposed by the applicant and approved by the City, if the City determines through

the applicable review process that the optional measures will be at least as effective in concealing the PWSF as the measures required above.

- f. Notwithstanding the above, the manner of concealment for any PWSF that requires approval through Process IIA or Process IIB shall be reviewed and determined as part of that process.

## Setbacks

According to KZC 117.65.4:

Setbacks – The following regulations apply, except for structures located in public right-of-way:

- a. New towers in any zone shall be set back a minimum of 20 feet from any property line, plus an additional one-half foot for each foot of tower height above 40 feet (e.g., if the tower is 40 feet in height, the setback will be 20 feet from any property line; if the tower is 50 feet in height, the setback shall be 25 feet from any property line).
- b. Replacement structures intended to accommodate a PWSF shall be set back a distance equal to or greater than the setback of the original structure from any property line adjacent to or across the street from a residential use or residential zone; and the lesser of 10 feet or the distance of the original structure from any property line adjacent to or across the street from all other uses or zones.

The proposed modifications are located on an existing building. The above regulations are not applicable to the proposal.

## Tower and Antenna Height

According to KZC 117.65.5:

Tower and Antenna Height – The applicant shall demonstrate, to the satisfaction of the City, that the tower and antenna are the minimum height required to function satisfactorily. Personal wireless service towers shall not exceed 40 feet in residential zones, as measured from the average building elevation at the tower base to the highest point of the tower, antenna, or other physical feature attached to or supported by the tower. Examples of information that can be used to demonstrate that the tower and antennas are the minimum height necessary include, but are not limited to, propagation maps showing the necessity of the height to provide the required coverage, and a letter from a radio frequency engineer stating and explaining the necessity of the proposed height.

The proposed antenna modifications will not have any projections above the existing building height. The proposed antenna height will match existing antenna heights on the building.

## Antennas on a Utility Pole

According to KZC 117.65.6:

Antennas on a Utility Pole – Antennas mounted to an existing or replacement utility pole shall be subject to the following height limits:

- a. In any zone, 15 feet above the top of a pole not used to convey electrical service;
- b. In a residential zone, 15 feet above the electrical distribution or transmission conductor (as opposed to top of pole) if the pole is used to convey electrical service; and
- c. In a nonresidential zone, 15 feet above an electrical distribution conductor or 21 feet above an electrical transmission conductor (as opposed to top of pole) if the pole is used to convey electrical service.
- d. On Seattle City Light transmission towers, regardless of zone, 15 feet above the top of the tower, before any tower extensions, subject to the concealment measures identified in subsection (3) of this section.

The proposed modifications are located on an existing building. The above regulations are not applicable to the proposal.

### Antennas on a Building, Mechanical Equipment Enclosure, or Water Reservoir

According to KZC 117.65.7:

#### Antennas on a Building, Mechanical Equipment Enclosure, or Water Reservoir

- a. Antennas, including panel or directional antennas, may be attached to the sides, parapets, mechanical penthouses, or similar elements, of buildings, subject to the limitations of this chapter.
- b. Antenna height is measured above the top of the roof, not from the parapet or from the average building elevation of the building, mechanical equipment enclosure, or water reservoir.
- c. Omni-directional antennas may be roof-mounted, but may not be mounted on top of rooftop appurtenances. No panel or directional antennas may be mounted on roofs or project above the roofline, except as provided in subsection (7)(g) of this section. The “roofline” of a water reservoir that incorporates a curved roof shall be the point at which the vertical wall of the water reservoir ends and the curvature of the roof begins.
- d. Whip antennas may exceed the structure height by 15 feet, and other omni-directional antennas may exceed the structure height by 10 feet.
- e. Roof-mounted antennas must be set back from the edge of the roof a distance equal to 100 percent of antenna height.
- f. Roof-mounted antennas shall be consolidated and centered in the roof to the maximum extent feasible rather than scattered.
- g. Antennas, including flush-mounted panel or directional antennas, may be attached to an existing conforming mechanical equipment enclosure or stair or elevator penthouse or similar rooftop appurtenance which projects above the roof of the building, but may not project any higher than the enclosure.
- h. Except for PWSF installed in an existing rooftop penthouse, PWSF shall occupy no more than 10 percent of the total roof area of a building. Rooftop conduit shall be excluded from this calculation.
- i. Building parapets or other architectural features, including rooftop mechanical equipment enclosures, stair or elevator penthouses, or similar rooftop appurtenances, shall not be increased in size or height solely for the purpose of facilitating the attachment of PWSF components.

The proposed modifications are located on an existing building. The replacement antennas and auxiliary equipment will be painted to match the existing building and are flush mounted. There are no proposed changes in antenna height. The antennas are setback from the edge of roof the

required distance. The proposed site modifications meet the above requirements. Please see Sheet A-2 and A-5.1 for more detailed information.

#### Historic or Landmark Locations

According to KZC 117.65.8:

Historic or Landmark Locations – No antennas shall be permitted on property designated as a historic resource or community landmark as identified in the Comprehensive Plan, unless such antennas have been approved in accordance with design requirements pertaining to historic structures.

Verizon and its agents are not aware of the property being designated as a historic resource and/or a community landmark.

#### Signals, Wires, Views, Lights, Signs, and Noise

According to KZC 117.65.9-13:

9. Signal Interference – No antennas shall cause localized interference with the transmission or reception of any other communications signals including, but not limited to, public safety signals, and television and radio broadcast signals.

Verizon's site will adhere to all FCC regulations and licenses.

10. Support Wires – No guy or other support wires shall be used in connection with antennas, antenna arrays or support structures except when required by construction codes adopted by the City.

Verizon's site will not utilize any support wires.

11. Views – PWSF, including towers, must be located and oriented in such a way as to minimize view blockage.

Verizon's proposed site modifications will not impact any views.

12. Lights, Signals and Signs – No signals, lights or signs shall be permitted on towers unless required by the FCC or the FAA.

No lights signals, and/or signs will be on-site unless required by either the FCC and/or Federal Aviation Administration (FAA).

13. Noise – The installation and operation of PWSF shall comply with the noise standards set forth in KZC [115.95](#).

Verizon's site will adhere to all applicable local and state regulations regarding noise.

#### Federal Requirements

According to KZC 117.65.14

Federal Requirements – All PWSF must meet current standards and regulations of the FAA, the FCC and any other agency of the federal government with the

authority to regulate towers and antennas. If such standards and regulations are changed, the owners of the PWSF shall bring such PWSF into compliance with such changes in accordance with the compliance deadlines and requirements of such changes. Failure to bring towers and antennas into compliance shall constitute grounds for the removal of the tower or antenna at the owner's expense. If, upon inspection, the City concludes that a PWSF fails to comply with such regulations and standards and constitutes a danger to persons or property, then, upon notice being provided to the owner of the PWSF, the owner shall have 30 days to bring such PWSF into compliance with such standards and regulations. If the owner fails to bring such PWSF into compliance within said 30 days, the City may remove such PWSF at the owner's expense.

Verizon proposed telecommunication facility will meet or exceed current standards and regulations of the FAA, the FCC, and any other agency of the Federal government with the authority to regulate towers and antennas.

Verizon's site will conform to all FAA/FCC regulations, and because the maximum ERP is less than two thousand (2,000) watts and/or the height of the facility is greater than ten meters (10m), an environmental evaluation of radio frequency emissions is exempted per CFR Title 47 Part 24, Subpart E.

Verizon has a license from the FCC to provide wireless telecommunication services throughout Washington State

#### Equipment Structure Standards

According to KZC 117.70:

1. Maximum Size in Residential Zones - Equipment structures shall not exceed five feet in height. Equipment structure enclosures shall not exceed 125 square feet each. These limitations shall apply to each individual equipment structure and enclosure; provided, that equipment structures that are fully contained within a legally established building that houses or is accessory to a principal permitted use shall not be subject to these limitations.
2. Maximum Size in Nonresidential Zones - Gross floor area of equipment structures shall be the minimum necessary but not greater than 240 square feet per provider. Maximum height is 10 feet above average building elevation. These limitations shall not apply to equipment structures that are fully contained within a building that houses or is accessory to a principal permitted use and that satisfies the dimensional regulations of the underlying zone.
3. Equipment Structures Located in Right-of-Way
  - a. If ground-mounted, equipment structures shall not exceed a height of 30 inches. If mounted on poles, said structures shall comply with subsection (6) of this section. Setback requirements do not apply to equipment structures located in the right-of-way.
  - b. Exception - The Planning Official may increase the 30-inch height limitation for ground-mounted equipment structures to a maximum of 66 inches, if:
    - 1) The height increase is required by the serving electrical utility; and
    - 2) No feasible alternative exists for reducing the height of the structure; and
    - 3) Concealment measures are employed; and



- 4) The height increase will not adversely impact the neighborhood or the City.
4. Setbacks When Located on Private Property – Ground-mounted equipment structures over 30 inches in height shall be set back at least 10 feet from all property lines; provided, that equipment structures that are fully contained within a legally established building that houses or is accessory to a principal permitted use shall not be subject to this requirement.
5. Equipment Structures on or Above a Structure – Equipment structures on or above a structure shall be subject to the following criteria:
  - a. Equipment structure height is measured above the top of the roof, not the parapet.
  - b. When mounted to the roof of a building with a pitched or stepped roof form, roof-mounted equipment structures shall be incorporated into the stepped roof form, and not appear as a separate penthouse or box.
6. Equipment Structures Mounted on Poles or Towers
  - a. Equipment structures may be mounted on utility poles or towers. The location and vertical clearance of such structures shall be reviewed by the Public Works Department and verified by the underlying utility owner to ensure that the structures will not pose a hazard to other users of the right-of-way.
  - b. Equipment structures mounted on utility poles or towers shall be located in a manner that minimizes clutter and visual impact.
7. Compatibility – Equipment structures shall be designed to be compatible with the surrounding area in which they are located. For example, in a residential area, a sloped roof or wood siding may be required.
8. Concealment – One or more of the following concealment measures must be employed unless the City determines through the applicable review process that alternative measures would be more appropriate given the contextual setting of the equipment structure:
  - a. Locating within a building or building appendage constructed in accordance with all applicable City codes;
  - b. Locating on top of a building, with architecturally compatible screening;
  - c. Locating underground;
  - d. Locating above ground with a solid fence and landscaping subject to the limitations of KZC [117.75](#)(3); or
  - e. If mounted on a utility pole or tower, the equipment structure shall be of a similar color to that of the pole or tower to which it is attached, unless alternative measures are approved by the City as part of the applicable review process.
9. Noise Standards – Equipment structures shall be oriented so that exhaust ports or outlets are pointed away from properties that may be impacted by noise. The installation and operation of equipment structures shall comply with noise regulations in KZC [115.95](#). The City may require an assessment of noise after operation begins and remediation if the noise levels created are not within the prescribed limits. Cumulative noise impacts will be measured in cases where there is more than one equipment structure.

Verizon's proposed site modifications do not include additional ground mounted equipment cabinets.

## Screening

According to KZC 117.75:

1. General – Landscaping shall be required to screen as much of the PWSF and any ground-mounted features, including fencing, as possible, and in general

soften the appearance of the site. The City may allow or require the use of concealment technology, as described in KZC [117.65\(3\)](#), either instead of or in addition to required landscaping, to achieve effective screening. The effectiveness of visual mitigation techniques will be evaluated by the City, taking into consideration the site as built. If the antenna is mounted on a building, and the equipment structure is housed inside the building, landscaping shall not be required.

2. Existing Vegetation – Existing vegetation shall be preserved or improved, and disturbance of the existing topography of the site shall be minimized, unless such disturbance will result in less visual impact of the site on the surrounding area.
3. Buffering
  - a. Except for PWSF located in a public right-of-way and subject to review as a Planning Official decision, buffering of ground-mounted PWSF shall be required around the perimeter of the facility as follows:
    - 1) Provide a five-foot-wide landscaped strip with one row of trees planted no more than 10 feet apart on center along the entire length of the buffer, with deciduous trees of two-inch caliper, minimum, and/or coniferous trees at least six feet in height, minimum. At least 50 percent of the required trees shall be evergreen.
    - 2) Living ground covers planted from either four-inch pots with 12-inch spacing or one-gallon pots with 18-inch spacing to cover within two years 60 percent of the land use buffer not needed for viability of the trees.
  - b. As an option to the buffering measures described in subsection (3)(a) of this section, the City may approve or require one or more of the measures provided for below, if the City determines that such measures will provide effective screening. Such optional measures include, but are not limited to, the following:
    - 1) Walls or solid fencing, of a height at least as high as the equipment it screens, subject to subsection (4) of this section, Fencing.
    - 2) Architectural features, such as parapets, mechanical penthouses, or building fin walls.
    - 3) Climbing vegetation supported by a structure such as a fence or trellis, of a type and size that will provide a dense visual barrier at least as high as the equipment it screens within two years from the time of planting.
    - 4) Screening by the natural topography of the site or the adjoining property or right-of-way.
4. Fencing – Fencing may be allowed or required if it is needed for security purposes, or if it is part of concealment technology. The use of chain link, plastic, vinyl or wire fencing is prohibited unless it is fully screened from public view. Landscaping shall be installed on the outside of fences. Fencing installed specifically for the purpose of screening ground-mounted PWSF shall not be taller than necessary to provide appropriate screening.
5. Maintenance – The applicant shall maintain the screening in good condition and shall replace any plants required by this chapter or approved or required as part of the permit approval that are unhealthy or dead. In the event that screening is not maintained at the required level, the City, after giving 30 days' advance written notice to the provider, may maintain or establish the screening and bill both the landowner and provider for such costs until such costs are paid in full.
6. Notwithstanding the above, the manner of screening for any PWSF that requires approval through Process IIA or Process IIB shall be reviewed and determined as part of that process.

Verizon's proposed site modifications do not include additional ground mounted equipment and/or any changes to the existing equipment area.

## State Environmental Policy Act (SEPA)

According to Revised Code of Washington (RCW) 43.21C.0384:

Application of RCW 43.21C.030(2)(c) to personal wireless services facilities.

- (1) Decisions pertaining to applications to site wireless service facilities are not subject to the requirements of RCW 43.21C.030(2)(c), if those facilities meet the following requirements:
  - (a) The collocation of new equipment, removal of equipment, or replacement of existing equipment on existing or replacement structures does not substantially change the physical dimensions of such structures; or
  - (b) The siting project involves constructing a personal wireless service tower less than sixty feet in height that is located in a commercial, industrial, manufacturing, forest, or agricultural zone. This exemption does not apply to projects within a designated critical area.
- (2) The exemption authorized under subsection (1) of this section may only be applied to a project consisting of a series of actions when all actions in the series are categorically exempt and the actions together do not have a probable significant adverse environmental impact.
- (3) The department of ecology shall adopt rules to create a categorical exemption for wireless service facilities that meet the conditions set forth in subsections (1) and (2) of this section.
- (4) By January 1, 2020, all wireless service providers granted an exemption to RCW 43.21C.030 (2) © must provide the legislature with the number of permits issued pertaining to wireless service facilities, the number of exemptions granted under this section, and the total dollar investment in wireless service facilities between July 1, 2013 and June 30, 2019.
- (5) The definitions in this subsection apply throughout this section unless the context clearly requires otherwise.
  - (a) "Wireless services" means wireless data and telecommunications services, including mobile services, commercial mobile data services, unlicensed wireless services, and common carrier wireless exchange access services, as defined by federal laws and regulations.
  - (b) "Wireless service facilities" means facilities for the provision of wireless services.
  - (c) "Collocation" means the mounting or installation of equipment on an existing tower, building, or structure for the purpose of either transmitting or receiving, or both radio frequency signals for communications purposes.
  - (d) "Existing structure" means any existing tower, pole, building, or other structure capable of supporting wireless service facilities.
  - (e) "Substantially change the physical dimensions" means:

- (i) The mounting of equipment on a structure that would increase the height of the structure by more than ten percent, or twenty feet, whichever is greater; or
- (ii) The mounting of equipment that would involve adding an appurtenance to the body of the structure that would protrude from the edge of the structure more than twenty feet, or more than the width of the structure at the level of the appurtenance, whichever is greater.

The proposed attachment modifications (collocation) to an existing building meet the requirements for being categorically exempt from SEPA review.

#### Parking

A parking space has been provided for maintenance.

#### FCC Time Period Guidelines

On November 18, 2009, the FCC issued a Declaratory Ruling (FCC-09-99A1) that created periods of time under the Telecommunications Act (TCA) in which zoning authorities must act upon siting applications filed by wireless carriers or be in violation of the TCA. Specifically, the timelines are as follows: ninety (90) days for co-locations and one hundred fifty (150) days for all other sites including new towers. Please see the FCC Declaratory Ruling 09-99A1 for more detailed information.

#### Existing Use

The property has existing telecommunication facilities.

#### Access/Circulation

There are no traffic impacts associated with these types of facilities as they are unmanned and require infrequent maintenance. The existing access road will be used for the proposal.